



Antero Resources
 Cottrell Unit 1HR
 Harrison County West Virginia
 Northing: 14259110.20
 Easting: 1787768.78
 Original Wellpath

WELL DETAILS: Cottrell Unit 1HR

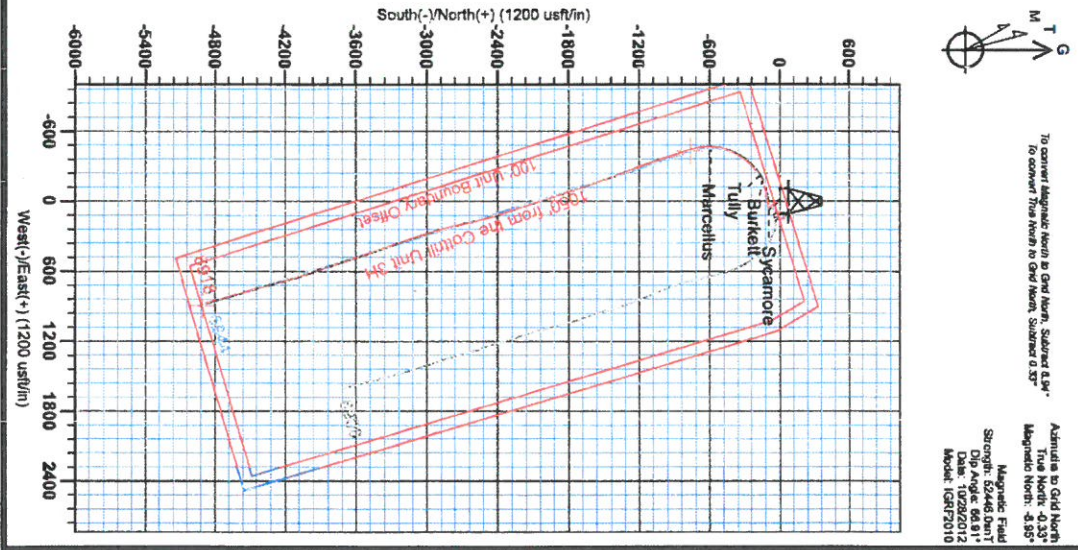
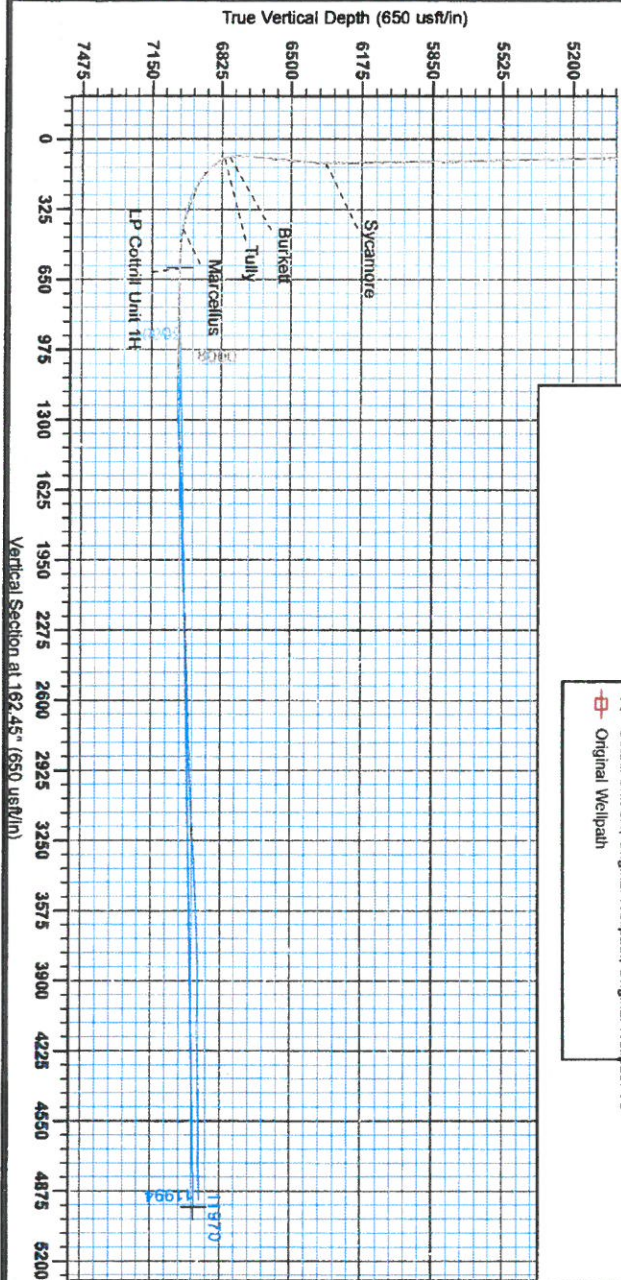
Well ID	40-5	Well Name	40-5
Well Type	Oil	Well Status	Oil
Well Depth	14259110.20	Well Orientation	1787768.78 89° 18' 00" N 28 46.751 W
Well Location	1787768.78 89° 18' 00" N 28 46.751 W	Well Type	Oil

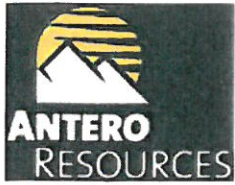
PROJECT DETAILS: Harrison County West Virginia
 Geologic System: Utshagen/Triassic/Mesozoic (US Survey Field)
 Datum: NAD 1983 (NAD83/CONUS83)
 Ellipsoid: GRS 1980
 Zone: Zone 17N (4 W to 2 W)
 System Datum: Mean Sea Level

Scientific Drilling
 421 South Eagle Lane
 Oklahoma City, OK
 14:12, March 28 2013
 Gentle Lightfoot

LEGEND

- Cottrell Unit 1HR, Original Wellpath, Plan 4 V0
- ✱ Cottrell Unit 3H, Original Wellpath, Original Wellpath V0
- Original Wellpath





Antero Resources

**Harrison County West Virginia
Cottrill Pad
Cottrill Unit 1HR
Original Wellpath**

Design: Original Wellpath

EOW Completion Report

28 March, 2013





Company: Antero Resources
 Project: Harrison County West Virginia
 Site: Cottrill Pad
 Well: Cottrill Unit 1HR
 Wellbore: Original Wellpath
 Design: Original Wellpath

Local Co-ordinate Reference: Well Cottrill Unit 1HR
 TVD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
 MD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Oklahoma District Db

Project	Harrison County West Virginia, Harrison County, USA		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Cottrill Pad				
Site Position:		Northing:	14,259,106.85 usft	Latitude:	39° 15' 56.572 N
From:	Map	Easting:	1,787,759.35 usft	Longitude:	80° 28' 45.912 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.33 °

Well	Cottrill Unit 1HR					
Well Position	+N/-S	0.0 usft	Northing:	14,259,110.20 usft	Latitude:	39° 15' 56.604 N
	+E/-W	0.0 usft	Easting:	1,787,768.78 usft	Longitude:	80° 28' 45.791 W
Position Uncertainty	2.0 usft		Wellhead Elevation:	1,188.0 usft	Ground Level:	1,175.0 usft

Wellbore	Original Wellpath				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	10/28/2012	(°) -8.62	(°) 66.91	(nT) 52,446

Design	Original Wellpath				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction
		(usft)	(usft)	(usft)	(°)
		0.0	0.0	0.0	162.45

Survey Program	Date 3/28/2013				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
63.0	6,215.0	Survey #3 Def Gyro to KOP (Original Well	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper	
6,252.0	11,970.0	Survey #4 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1	

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00		
63.0	0.31	119.12	63.0	-0.1	0.1	0.1	0.49		
113.0	0.73	144.86	113.0	-0.4	0.5	0.5	0.94		
163.0	1.50	154.53	163.0	-1.3	0.9	1.5	1.58		
213.0	1.78	157.90	213.0	-2.6	1.5	2.9	0.59		
263.0	1.71	158.94	262.9	-4.0	2.0	4.4	0.15		
313.0	1.43	163.24	312.9	-5.3	2.5	5.8	0.61		
363.0	1.59	158.84	362.9	-6.5	2.9	7.1	0.39		
413.0	1.42	161.91	412.9	-7.8	3.4	8.4	0.38		
463.0	1.37	160.91	462.9	-8.9	3.8	9.6	0.11		
513.0	1.34	161.25	512.9	-10.0	4.1	10.8	0.06		



EOW Completion Report



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TVD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
MD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
563.0	1.20	161.60	562.8	-11.1	4.5	11.9	0.28
613.0	1.21	161.89	612.8	-12.1	4.8	13.0	0.02
663.0	1.21	161.44	662.8	-13.1	5.2	14.0	0.02
713.0	1.21	160.39	712.8	-14.1	5.5	15.1	0.04
763.0	1.19	161.38	762.8	-15.1	5.8	16.1	0.06
813.0	1.22	160.04	812.8	-16.1	6.2	17.2	0.08
863.0	1.21	159.05	862.8	-17.1	6.6	18.2	0.05
913.0	1.30	159.68	912.8	-18.1	6.9	19.3	0.18
963.0	1.17	161.04	962.8	-19.1	7.3	20.4	0.27
1,013.0	1.18	156.23	1,012.7	-20.0	7.7	21.4	0.20
1,063.0	1.02	157.96	1,062.7	-20.9	8.1	22.4	0.33
1,113.0	1.02	155.04	1,112.7	-21.7	8.4	23.3	0.10
1,163.0	0.97	156.64	1,162.7	-22.5	8.8	24.1	0.11
1,213.0	1.00	152.85	1,212.7	-23.3	9.1	25.0	0.15
1,263.0	1.02	150.88	1,262.7	-24.1	9.6	25.9	0.07
1,313.0	1.06	153.47	1,312.7	-24.9	10.0	26.7	0.12
1,363.0	1.00	155.55	1,362.7	-25.7	10.4	27.6	0.14
1,413.0	1.05	148.77	1,412.7	-26.5	10.8	28.5	0.26
1,463.0	0.96	155.16	1,462.7	-27.3	11.2	29.4	0.29
1,513.0	0.93	154.54	1,512.7	-28.0	11.5	30.2	0.06
1,563.0	0.94	155.12	1,562.7	-28.8	11.9	31.0	0.03
1,613.0	0.90	150.76	1,612.7	-29.5	12.3	31.8	0.16
1,663.0	0.68	155.00	1,662.7	-30.1	12.6	32.5	0.45
1,713.0	0.73	148.67	1,712.6	-30.6	12.9	33.1	0.18
1,763.0	0.61	153.11	1,762.6	-31.1	13.2	33.6	0.26
1,813.0	0.63	150.30	1,812.6	-31.6	13.4	34.2	0.07
1,863.0	0.65	141.61	1,862.6	-32.1	13.7	34.7	0.20
1,913.0	0.67	141.21	1,912.6	-32.5	14.1	35.2	0.04
1,963.0	0.68	146.91	1,962.6	-33.0	14.4	35.8	0.14
2,013.0	0.73	141.73	2,012.6	-33.5	14.8	36.4	0.16
2,063.0	0.66	145.03	2,062.6	-34.0	15.1	37.0	0.16
2,113.0	0.72	143.55	2,112.6	-34.5	15.5	37.5	0.13
2,163.0	0.77	140.49	2,162.6	-35.0	15.9	38.1	0.13
2,213.0	0.71	139.31	2,212.6	-35.5	16.3	38.7	0.12
2,263.0	0.89	143.05	2,262.6	-36.0	16.8	39.4	0.37
2,313.0	0.84	140.66	2,312.6	-36.6	17.2	40.1	0.12
2,363.0	0.75	140.63	2,362.6	-37.1	17.7	40.7	0.18
2,413.0	0.86	141.74	2,412.6	-37.7	18.1	41.4	0.22
2,463.0	0.90	142.90	2,462.6	-38.3	18.6	42.1	0.09
2,513.0	0.89	140.99	2,512.6	-38.9	19.0	42.9	0.06
2,563.0	0.92	146.31	2,562.6	-39.6	19.5	43.6	0.18
2,592.0	1.02	136.67	2,591.6	-39.9	19.8	44.1	0.66
2,613.0	0.84	144.88	2,612.6	-40.2	20.0	44.4	1.06
2,663.0	0.89	140.61	2,662.6	-40.8	20.5	45.1	0.16



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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,713.0	0.95	141.46	2,712.6	-41.4	21.0	45.8	0.12
2,763.0	0.92	138.53	2,762.5	-42.0	21.5	46.6	0.11
2,813.0	0.94	137.79	2,812.5	-42.7	22.1	47.3	0.05
2,863.0	0.94	138.32	2,862.5	-43.3	22.6	48.1	0.02
2,913.0	0.98	137.91	2,912.5	-43.9	23.2	48.8	0.08
2,963.0	1.02	134.90	2,962.5	-44.5	23.8	49.6	0.13
3,013.0	1.03	135.85	3,012.5	-45.2	24.4	50.4	0.04
3,063.0	1.07	133.09	3,062.5	-45.8	25.1	51.2	0.13
3,113.0	1.09	132.26	3,112.5	-46.4	25.7	52.0	0.05
3,163.0	1.02	134.04	3,162.5	-47.1	26.4	52.8	0.15
3,213.0	0.99	136.99	3,212.5	-47.7	27.0	53.6	0.12
3,263.0	0.99	135.22	3,262.5	-48.3	27.6	54.4	0.06
3,313.0	1.04	135.11	3,312.5	-48.9	28.3	55.2	0.10
3,363.0	0.99	133.91	3,362.5	-49.6	28.9	56.0	0.11
3,413.0	1.03	135.43	3,412.4	-50.2	29.5	56.7	0.10
3,463.0	0.91	134.69	3,462.4	-50.8	30.1	57.5	0.24
3,513.0	0.93	135.33	3,512.4	-51.3	30.7	58.2	0.04
3,563.0	0.95	137.22	3,562.4	-51.9	31.2	58.9	0.07
3,613.0	0.93	135.71	3,612.4	-52.5	31.8	59.7	0.06
3,663.0	0.94	137.28	3,662.4	-53.1	32.4	60.4	0.06
3,713.0	1.01	136.74	3,712.4	-53.7	33.0	61.2	0.14
3,763.0	0.96	135.25	3,762.4	-54.4	33.6	62.0	0.11
3,813.0	1.01	135.96	3,812.4	-55.0	34.2	62.7	0.10
3,863.0	1.03	135.90	3,862.4	-55.6	34.8	63.5	0.04
3,913.0	1.06	137.09	3,912.4	-56.3	35.4	64.3	0.07
3,963.0	1.02	140.73	3,962.4	-57.0	36.0	65.2	0.15
4,013.0	1.07	140.04	4,012.4	-57.7	36.6	66.0	0.10
4,063.0	1.05	137.23	4,062.4	-58.4	37.2	66.9	0.11
4,113.0	1.08	137.44	4,112.3	-59.0	37.8	67.7	0.06
4,163.0	1.10	135.17	4,162.3	-59.7	38.5	68.6	0.10
4,213.0	1.20	136.88	4,212.3	-60.5	39.2	69.5	0.21
4,263.0	1.25	137.08	4,262.3	-61.2	39.9	70.4	0.10
4,313.0	1.33	134.69	4,312.3	-62.0	40.7	71.4	0.19
4,363.0	1.32	133.49	4,362.3	-62.8	41.5	72.4	0.06
4,413.0	1.40	133.02	4,412.3	-63.7	42.4	73.5	0.16
4,463.0	1.41	132.27	4,462.3	-64.5	43.3	74.5	0.04
4,513.0	1.46	132.59	4,512.2	-65.3	44.2	75.6	0.10
4,563.0	1.55	132.67	4,562.2	-66.2	45.2	76.8	0.18
4,613.0	1.56	132.04	4,612.2	-67.1	46.2	77.9	0.04
4,663.0	1.61	131.61	4,662.2	-68.1	47.2	79.1	0.10
4,713.0	1.57	133.51	4,712.2	-69.0	48.2	80.3	0.13
4,763.0	1.60	134.99	4,762.1	-70.0	49.2	81.5	0.10
4,813.0	1.57	135.26	4,812.1	-70.9	50.2	82.8	0.06
4,863.0	1.56	133.14	4,862.1	-71.9	51.2	84.0	0.12
4,913.0	1.49	135.00	4,912.1	-72.8	52.1	85.2	0.17



Company: Antero Resources
Project: Harrison County West Virginia
Site: Cottrill Pad
Well: Cottrill Unit 1HR
Wellbore: Original Wellpath
Design: Original Wellpath

Local Co-ordinate Reference: Well Cottrill Unit 1HR
TVD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
MD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,963.0	1.51	134.44	4,962.1	-73.7	53.1	86.3	0.05
5,013.0	1.50	133.63	5,012.1	-74.7	54.0	87.5	0.05
5,063.0	1.49	133.08	5,062.0	-75.6	55.0	88.6	0.03
5,113.0	1.49	134.74	5,112.0	-76.5	55.9	89.7	0.09
5,163.0	1.54	133.77	5,162.0	-77.4	56.8	90.9	0.11
5,213.0	1.53	135.59	5,212.0	-78.3	57.8	92.1	0.10
5,263.0	1.63	137.15	5,262.0	-79.3	58.7	93.3	0.22
5,313.0	1.61	135.57	5,311.9	-80.3	59.7	94.6	0.10
5,363.0	1.54	137.02	5,361.9	-81.3	60.7	95.8	0.16
5,413.0	1.39	136.13	5,411.9	-82.3	61.5	97.0	0.30
5,463.0	1.35	133.08	5,461.9	-83.1	62.4	98.0	0.17
5,513.0	1.15	131.96	5,511.9	-83.8	63.2	99.0	0.40
5,563.0	1.11	129.06	5,561.9	-84.5	63.9	99.8	0.14
5,613.0	0.90	129.47	5,611.9	-85.0	64.6	100.6	0.42
5,663.0	0.85	123.61	5,661.9	-85.5	65.2	101.2	0.20
5,713.0	0.91	122.38	5,711.9	-85.9	65.9	101.8	0.13
5,763.0	1.00	122.51	5,761.9	-86.4	66.6	102.4	0.18
5,813.0	1.10	128.66	5,811.8	-86.9	67.3	103.1	0.30
5,863.0	0.91	136.86	5,861.8	-87.5	68.0	103.9	0.48
5,913.0	0.80	125.00	5,911.8	-88.0	68.5	104.5	0.42
5,963.0	0.78	140.91	5,961.8	-88.4	69.0	105.1	0.44
6,013.0	0.98	139.09	6,011.8	-89.0	69.5	105.8	0.40
6,063.0	0.83	132.82	6,061.8	-89.6	70.1	106.5	0.36
6,113.0	0.77	133.35	6,111.8	-90.1	70.6	107.2	0.12
6,163.0	0.94	139.03	6,161.8	-90.6	71.1	107.8	0.38
6,213.0	1.01	137.88	6,211.8	-91.2	71.7	108.6	0.15
6,215.0	1.01	137.83	6,213.8	-91.3	71.7	108.6	0.04
6,252.0	0.97	133.01	6,250.8	-91.7	72.1	109.2	0.25
6,315.0	1.41	239.13	6,313.8	-92.5	71.9	109.8	3.05
6,345.0	5.39	265.00	6,343.7	-92.8	70.1	109.6	13.91
Sycamore							
6,347.0	5.67	265.42	6,345.7	-92.8	69.9	109.6	13.91
6,379.0	9.78	267.86	6,377.4	-93.0	65.6	108.5	12.88
6,411.0	13.81	265.86	6,408.7	-93.4	59.1	106.9	12.66
6,442.0	17.73	265.41	6,438.6	-94.1	50.7	105.0	12.65
6,474.0	20.84	264.29	6,468.8	-95.0	40.2	102.7	9.79
6,506.0	23.48	263.15	6,498.4	-96.3	28.2	100.4	8.36
6,538.0	25.95	264.53	6,527.5	-97.8	14.9	97.7	7.93
6,570.0	27.97	265.10	6,556.0	-99.1	0.5	94.6	6.36
6,601.0	30.36	262.01	6,583.1	-100.8	-14.6	91.7	9.11
6,632.0	32.58	259.44	6,609.5	-103.4	-30.5	89.4	8.37
6,664.0	34.80	257.44	6,636.1	-107.0	-47.9	87.6	7.75
6,696.0	38.23	257.44	6,661.8	-111.1	-66.5	85.9	10.72
6,727.0	41.46	258.05	6,685.6	-115.3	-85.9	84.1	10.50



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6,759.0	44.81	258.60	6,709.0	-119.8	-107.3	81.8	10.53
6,791.0	47.49	256.41	6,731.1	-124.8	-129.8	79.8	9.72
6,822.0	49.78	251.17	6,751.6	-131.3	-152.2	79.3	14.68
6,854.0	52.24	246.30	6,771.8	-140.3	-175.3	80.9	14.10
6,877.0	53.28	242.95	6,785.7	-148.1	-191.9	83.4	12.43
Burkett							
6,885.0	53.66	241.81	6,790.5	-151.1	-197.6	84.5	12.43
6,917.0	55.16	238.37	6,809.1	-164.1	-220.1	90.1	9.92
6,921.0	55.35	237.93	6,811.4	-165.8	-222.9	90.9	10.27
Tully							
6,949.0	56.71	234.87	6,827.0	-178.7	-242.2	97.3	10.27
6,980.0	58.82	230.89	6,843.6	-194.5	-263.1	106.1	12.81
7,012.0	61.25	226.66	6,859.5	-212.8	-284.0	117.3	13.74
7,044.0	63.72	224.39	6,874.3	-232.7	-304.2	130.1	9.96
7,076.0	64.77	222.29	6,888.2	-253.6	-324.0	144.1	6.76
7,108.0	66.79	219.44	6,901.4	-275.7	-343.1	159.4	10.29
7,139.0	68.41	216.57	6,913.2	-298.3	-360.7	175.6	10.03
7,171.0	70.50	213.58	6,924.4	-322.8	-377.9	193.8	10.92
7,203.0	72.11	211.11	6,934.7	-348.4	-394.1	213.4	8.88
7,234.0	72.90	208.63	6,944.0	-374.0	-408.8	233.4	8.04
7,265.0	72.89	205.87	6,953.1	-400.4	-422.4	254.4	8.51
7,296.0	72.71	202.59	6,962.3	-427.4	-434.6	276.5	10.12
7,328.0	72.79	198.85	6,971.8	-456.0	-445.4	300.4	11.16
7,359.0	73.98	195.56	6,980.6	-484.3	-454.2	324.8	10.87
7,391.0	75.63	191.56	6,989.0	-514.4	-461.4	351.3	13.12
7,423.0	76.80	187.13	6,996.7	-545.0	-466.4	379.0	13.93
7,455.0	77.52	182.68	7,003.8	-576.1	-469.1	407.8	13.74
7,464.0	78.12	181.52	7,005.7	-584.9	-469.4	416.1	14.26
Marcellus							
7,486.0	79.62	178.71	7,009.9	-606.5	-469.5	436.7	14.26
7,518.0	82.37	175.04	7,014.9	-638.0	-467.7	467.3	14.22
7,550.0	84.86	170.87	7,018.5	-669.6	-463.8	498.5	15.11
7,582.0	86.97	168.91	7,020.8	-700.9	-457.7	530.2	13.99
7,608.0	88.92	164.34	7,021.7	-726.0	-451.2	556.2	12.40
7,703.0	89.77	162.19	7,022.8	-817.0	-423.9	651.2	2.43
7,798.0	89.83	162.17	7,023.1	-907.4	-394.8	746.2	0.07
7,893.0	90.23	163.15	7,023.1	-998.1	-366.5	841.2	1.11
7,988.0	88.89	160.53	7,023.8	-1,088.4	-336.9	936.1	3.10
8,082.0	88.86	159.77	7,025.6	-1,176.8	-305.0	1,030.0	0.81
8,177.0	89.90	158.84	7,026.7	-1,265.6	-271.4	1,124.9	1.47
8,272.0	90.77	157.96	7,026.1	-1,354.0	-236.4	1,219.6	1.30
8,367.0	92.82	160.07	7,023.1	-1,442.6	-202.4	1,314.4	3.10
8,463.0	91.34	159.05	7,019.7	-1,532.5	-168.9	1,410.2	1.87
8,558.0	93.02	162.37	7,016.0	-1,622.1	-137.6	1,505.1	3.91
8,653.0	91.96	162.46	7,011.9	-1,712.6	-108.9	1,600.0	1.12



Company: Antero Resources
Project: Harrison County West Virginia
Site: Cottrill Pad
Well: Cottrill Unit 1HR
Wellbore: Original Wellpath
Design: Original Wellpath

Local Co-ordinate Reference: Well Cottrill Unit 1HR
TVD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
MD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
6,749.0	91.07	159.58	7,009.4	-1,803.3	-77.7	1,695.9	3.14
6,843.0	91.99	161.19	7,006.9	-1,891.8	-46.2	1,789.8	1.97
6,939.0	92.08	162.56	7,003.5	-1,983.0	-16.3	1,885.8	1.43
7,034.0	92.22	161.77	6,999.9	-2,073.4	12.8	1,980.7	0.84
7,130.0	91.91	162.63	6,996.4	-2,164.7	42.1	2,076.6	0.95
7,225.0	91.81	160.78	6,993.3	-2,254.8	71.9	2,171.6	1.95
7,320.0	92.69	160.63	6,989.6	-2,344.4	103.3	2,266.5	0.94
7,415.0	92.63	163.93	6,985.2	-2,434.8	132.1	2,361.3	3.47
7,510.0	91.99	164.77	6,981.4	-2,526.2	157.8	2,456.2	1.11
7,605.0	92.12	167.13	6,978.0	-2,618.3	180.8	2,551.0	2.49
7,700.0	91.95	167.35	6,974.6	-2,710.9	201.8	2,645.6	0.29
7,795.0	91.68	166.08	6,971.6	-2,803.3	223.6	2,740.3	1.37
7,890.0	90.87	164.13	6,969.5	-2,895.1	248.0	2,835.1	2.22
7,985.0	92.65	162.59	6,966.6	-2,986.1	275.2	2,930.1	2.48
8,080.0	92.93	161.90	6,961.9	-3,076.4	304.1	3,025.0	0.78
8,174.0	93.23	161.11	6,956.9	-3,165.5	333.9	3,118.8	0.90
8,270.0	93.12	160.39	6,951.6	-3,256.0	365.5	3,214.6	0.76
8,360.0	92.55	160.90	6,942.2	-3,345.0	428.4	3,404.3	0.40
8,455.0	93.10	160.38	6,937.5	-3,524.5	459.8	3,499.1	0.80
8,549.0	92.59	162.15	6,932.8	-3,613.4	490.0	3,593.0	1.96
8,644.0	91.48	161.91	6,929.4	-3,703.7	519.3	3,687.9	1.20
8,739.0	91.54	161.05	6,926.9	-3,793.8	549.5	3,782.9	0.91
8,833.0	90.88	159.65	6,925.0	-3,882.3	581.1	3,876.8	1.65
8,927.0	89.36	161.92	6,924.8	-3,971.0	612.0	3,970.7	2.91
9,021.0	89.40	161.27	6,925.8	-4,060.2	641.7	4,064.7	0.69
9,117.0	90.20	163.10	6,926.1	-4,151.6	671.0	4,160.7	2.08
9,212.0	91.28	164.31	6,924.9	-4,242.8	697.7	4,255.7	1.71
9,306.0	90.50	165.14	6,923.4	-4,333.5	722.4	4,349.6	1.21
9,402.0	91.71	165.04	6,921.6	-4,426.2	747.1	4,445.5	1.26
9,498.0	89.76	164.30	6,920.3	-4,518.8	772.5	4,541.4	2.17
9,593.0	89.97	163.92	6,920.6	-4,610.1	798.5	4,636.3	0.46
9,687.0	90.17	163.83	6,920.5	-4,700.4	824.6	4,730.3	0.23
9,783.0	91.17	164.49	6,919.3	-4,792.8	850.8	4,826.3	1.25
9,878.0	90.97	163.85	6,918.7	-4,826.5	860.4	4,861.2	1.92
9,970.0	90.97	163.85	6,917.8	-4,876.4	874.8	4,913.2	0.00



EOW Completion Report



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Local Co-ordinate Reference: Well Cottrill Unit 1HR
TVD Reference: Cottrill Unit 1H 1175' GL + 26' KB= @ 1201.0usft
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Oklahoma District Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,345.0	6,343.7	-92.8	70.1	Sycamore
6,877.0	6,785.7	-148.1	-191.9	Burkett
6,921.0	6,811.4	-165.8	-222.9	Tully
7,464.0	7,005.7	-584.9	-469.4	Marcellus

Checked By: _____	Approved By: _____	Date: _____
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